## REMARKS

The Office Action mailed March 13, 2008, rejected Claims 1, 4, 12, 15, and 23 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Further, Claims 1-28 were rejected as allegedly being unpatentable over Gutterman et al. (U.S. Patent No. 5,297,031) (hereinafter "Gutterman") in view of Nelson (U.S. Patent No. 4,823,265).

Claims 1-34 are pending in the application. No claims have been canceled and Claims 29-34 have been added. Applicant has considered the cited art and the comments provided in the Office Action, and respectfully submits that the pending claims are in patentable condition. Reconsideration and allowance of the present application is requested.

Claims 1, 4, 12, 15, and 23 Present Statutory Subject Matter Under 35 U.S.C. § 101

Applicant has considered the subject matter of Claims 1, 4, 12, 15, and 23, along with the principles and case law interpreting Section 101, and respectfully submits that the claims present statutory subject matter.

The Office Action (page 2) asserted that the claims are "directed to an algorithm" in that the claims recite sending or receiving a report. The Office Action alleged that the claims present "mere ideas in the abstract . . . without a practical application" and therefore are considered to be non-statutory as they allegedly "do not produce a useful, concrete and tangible result."

Applicant disagrees. Controlling case law interpreting Section 101 does not support the claim rejection set forth in the Office Action. The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1668, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998), for example, directly supports applicant's contention that Claims 1, 4, 12, 15, and 23 recite statutory subject matter.

As a matter of background, Signature Financial Group, Inc., was granted U.S. Patent No. 5,193,056 entitled "Data Processing System for Hub and Spoke Financial Services Configuration." The "spokes" were mutual funds that pool their assets in a central "hub." In the *State Street* decision, the Federal Circuit held that the invention described and claimed in the





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'056 patent was statutory subject matter. In particular, the Federal Circuit held that "the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades."

In similar fashion, the subject matter claimed in the present application constitutes a practical application in that market trading is facilitated by a method, system, and computer-accessible medium with executable instructions that provide for "sending a trial order to a market, wherein the trial order identifies an item to trade and indicates a quantity and a price for the item" (Claim 1). As further recited in Claim 1, "the trial order is configured for its indicated quantity to be automatically set to zero when the trial order is paired with a contra-side order." As recited in Claim 4, the trial order is paired with a contra-side order such that, "upon pairing, the quantity indicated in the trial order is automatically adjusted to zero as a result of being a trial order, which produces a pairing of the trial order with the contra-side order for a zero quantity of the item." These actions, as indicated, are undertaken "automatically, via a computer" (Claims 1 and 4, for example) or by "a computing component" or "one or more computing components" (Claims 12 and 15, for example). Additionally, via the computer, a report is received or provided "reporting the pairing of the trial order for the zero quantity of the item."

The useful, concrete, and tangible result of sending or receiving a trial order as claimed in the present application, together with setting the quantity in the trial order to zero and providing a report of pairing, is useful to the market participants at the market. As explicitly indicated in Claims 1 and 12, "the trial order provides discovery of current market depth for the item at the indicated quantity and price." Certainly, a method producing a result such as this is equally if not more "useful, concrete and tangible" as the method of share price calculation recited in Signature Financial Group's '056 patent.





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The principles discussed in *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 U.S.P.Q.2d 1447 (Fed. Cir. 1999) likewise support applicant's contention that Claims 1, 4, 12, 15, and 23 recite statutory subject matter. As explained by the Federal Circuit in this case, "[b]ecause Section 101 includes processes as a category of patentable subject matter, the judicially-defined proscription against patenting of a 'mathematical algorithm,' to the extent such a proscription still exists, is narrowly limited to mathematical algorithms in the abstract," which is not the case in the present application. *Id.* at 1358 (emphasis added). "The notion of 'physical transformation' can be misunderstood. In the first place, it is not an invariable requirement, but merely one example of how a mathematical algorithm may bring about a useful application. As the Supreme Court itself noted, 'when [a claimed invention] is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of Section 101.' *Diehr, 4*50 U.S. at 192 (emphasis added). The 'e.g.' signal denotes an example, not an exclusive requirement." *Id.* at 1358-59.

In *Gottschalk v. Benson*, 409 U.S. 63 (1972), the Court rejected a claimed invention that had "no substantial practical application," but the numerical method claimed in *Benson* is nowhere analogous to the method, system, or computer-accessible medium claimed in the present application. In *Benson*, the applicant claimed a method that simply converted binary-coded decimal numbers into pure binary numbers. To the contrary, the subject matter claimed in the present application is substantially more complex and has specific practical application in the technology of market trading.

Applicant asserts that implementing the elements of Claims 1, 4, 12, 15, and 23 will produce a result that is repeatable and reproducible. The outcome is that market participants engage in market discovery using trial orders as claimed to determine current market depth at an indicated quantity and price, which is useful for further market trading.





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Applicant submits that Claims 1, 4, 12, 15, and 23 recite subject matter that meets the statutory requirements of Section 101. Withdrawal of the claim rejections based on Section 101 is merited.

Patentability of Claims 1-3

Claim 1 reads as follows:

> 1. A method of facilitating trading, comprising:
> automatically, via a computer:
> sending a trial order to a market, wherein the trial order identifies an item to trade and indicates a quantity and price for the item, and wherein the trial order is configured for its indicated quantity to be automatically set to zero when the trial order is paired with a contra-side order, and
> receiving a pairing report when the trial order is paired with a contra-side order, in which the trial order is paired for a zero quantity of the item,
> wherein the trial order provides discovery of current market depth for the item at the indicated quantity and price while resulting in a pairing for a zero quantity of the item.

As applicant has previously discussed in response to the Patent Office, Gutterman is directed to a method and apparatus for order management by market brokers. Orders are received and displayed for execution. In particular, the orders may be arranged and displayed in an order deck, along with a total of orders at the market price. (See abstract of Gutterman.) Gutterman discusses handling order acceptances, fill reports, and cancel confirmations (Col. 6, lines 53-55). "Buy orders are represented in the deck pane as blue square shapes, and sell orders are represented as red circles, both of which include indications of the quantities of the orders represented." (Col. 12, lines 21-24.) Filling orders is further noted at Col. 13, lines 27-46, which discusses communicating the filled order information to a clearinghouse. See also the preamble of Claim 1 of Gutterman ("A broker workstation for managing buy and sell orders submitted to a broker from a plurality of customers for execution in a commodities, securities, securities options, futures contracts or futures options exchange") and Claim 8 (". . . a method for





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managing buy and sell orders submitted to a broker from a plurality of customers for execution in a commodities, securities, securities options, futures contracts or futures options exchange").

Applicant strongly disagrees that Gutterman discloses a "trial order" as claimed. Gutterman does not teach "sending a trial order to a market, wherein the trial order identifies an item to trade and indicates a quantity and a price for the item, and wherein the trial order is configured for its indicated quantity to be automatically set to zero when the trial order is paired with a contra-side order," as claimed.

Notably, the Office Action provided no guidance on the matter. The Office Action remarks fail to comply with 37 C.F.R. § 1.104(c)(2), which, under the "Rejection of Claims" heading, requires:

> When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Applicant respectfully submits that the remarks in the Office Action fail to show which particular parts of the cited references disclose each of the rejected recitations of Claim 1. For example, applicant has considered Gutterman, especially the passages cited in the Office Action (namely, the Abstract, as well as Col. 7, line 45, to Col. 8, line 32, and Col. 5, line 59, to Col. 6, line 27) and finds nothing in Gutterman that discloses "sending a trial order to a market, wherein the trial order identifies an item to trade and indicates a quantity and a price for the item, and wherein the trial order is configured for its indicated quantity to be automatically set to zero when the trial order is paired with a contra-side order," as claimed.

Gutterman also fails to teach "receiving a pairing report when the trial order is paired with a contra-side order, in which the trial order is paired for a zero quantity of the item," as claimed, "wherein the trial order provides discovery of current market depth for the item at the indicated quantity and price while resulting in a pairing for a zero quantity of the item."



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Should the Examiner continue to cite Gutterman as a pertinent reference, the Examiner is requested to indicate which orders in Gutterman are considered to be "trial orders." Applicant submits this task to be impossible because all of the orders discussed in Gutterman are regular orders to buy and sell that, when executed, result in a trade between market participants for a non-zero quantity of the item.

Recognizing that Gutterman is deficient in at least one aspect ("Gutterman fails to explicitly teach does not result in a trade") (Office Action, page 3), the Office Action relied on a combination of Gutterman and Nelson to reject Claim 1. However, the disclosure of Nelson is unavailing and does not remedy the deficiencies of Gutterman.

Nelson is directed to an accounting and marketing system for buying and selling renewable options. Options are tradable instruments that are regularly bought and sold at markets. In the context of tradable securities, an option is a contract that grants the owner a right to buy (in the case of a call) or sell (in the case of a put) a certain number of shares of a particular security at a given price. (See Nelson, Col. 1, lines 15-19.) Option contracts are separately tradable from their underlying securities. Options markets or exchanges designate different symbols for trading option contracts that have different strike prices and different expiration dates. Just as with orders to buy and sell shares of a stock, orders to buy and sell option contracts are paired at a market and result in a trade between buyers and sellers.

In rejecting Claim 1, the Office Action quoted Nelson at Col. 6, lines 3-21, which reads as follows:

> The current market price of the underlying security is listed on the display. Offer prices are listed according to strike price, which may (as shown) be described in set increments, or may be equal to or related to the current market price of the security. Bid (buyer offer) and asked (written offer) prices are also listed for each strike price. Alternatively, a single price representing the current market price of the renewable option at each strike price may be listed. As a third alternative, the price of each renewable option may also be set by the listing agent or the writing agent for the listing agent if the market is generated internally by the listing





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> agent rather than through a multi-access exchange. Prices may even be set by standardized formulas. Prices may obviously be affected by a variety of factors, but writers may well choose to list the price of the renewable options as a fixed percent of the strike/market price on the basis of prevailing interest rates and stock dividends yields, for example.

As can be seen, this passage of Nelson teaches nothing about a "trial order . . . [that results] in a pairing for a zero quantity of the item," as claimed in Claim 1. The example shown in Nelson at Figure 5a and described above concerns the display of *current market prices* for buying and selling different tradable instruments, namely shares of "XXX Corp." and option contracts for XXX Corp. A display of current prices does not provide information as to current market depth at a quantity and price and does not suggest a "trial order" as claimed; indeed, such a display is indicative of regular orders to buy and sell at a market. According to Nelson, when a trader desires to buy or sell an option contract, the trader enters a buy or sell order which is executable at the market. In contrast, a trial order as claimed in the present application differs from a regular order in that the trial order is configured for its indicated quantity to be automatically set to zero when the trial order is paired with a contra-side order. Accordingly, a trial order does not result in a trade between market participants but instead produces a pairing report for a zero quantity of the item.

Applicant has further considered the disclosure of Nelson at Col. 8, lines 53-60, and Col. 9, lines 18-28, as cited in the Office Action and does not find disclosure that is relevant to the claims. Simply put, the disclosures of Gutterman and Nelson, whether considered alone or combined, fail to teach the elements in Claim 1 and thus fail to support a *prima facie* obviousness rejection of Claim 1. Withdrawal of the rejection of Claim 1 is merited.

Claims 2 and 3, which depend from Claim 1, are patentable for the same reasons as Claim 1 and for the additional subject matter they recite. In particular, applicant maintains that neither Gutterman nor Nelson teaches the following features:

- wherein the pairing report also indicates the price at which the trial order was paired with the contra-side order (Claim 2); and





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- wherein the automatically sending and receiving are performed by a trading process (Claim 3).

For at least these reasons, Claims 2 and 3 should be allowed.

Patentability of Claims 4-11 and 29-30

Claim 4 reads as follows:

> 4. A method of facilitating trading, comprising:
> automatically, via a computer:
> receiving a trial order that identifies an item to trade and indicates a quantity and a price for the item,
> pairing the trial order with a contra-side order, wherein upon pairing, the quantity indicated in the trial order is automatically adjusted to zero as a result of being a trial order, which produces a pairing of the trial order with the contra-side order for a zero quantity of the item, and
> reporting the pairing of the trial order for the zero quantity of the item.

As noted above with respect to Claim 1, Gutterman discloses a method and system in which orders are received and displayed for execution. The orders disclosed by Gutterman result in actual trades between market participants. In contrast, a trial order as recited in Claim 4 is paired "with a contra-side order, wherein upon pairing, the quantity indicated in the trial order is automatically adjusted to zero as a result of being a trial order, which produces a pairing of the trial order with the contra-side order for a zero quantity of the item."

Acknowledging that Gutterman is deficient, the Office Action relied on Nelson at Col. 6, lines 3-21; Col. 8, lines 53-60; and Col. 9, lines 18-28, to support the rejection of Claim 4. Applicant has considered these passages of Nelson, and indeed the entire specification of Nelson, and does not find any disclosure of a trial order as claimed. Nelson's display of prices for options and/or shares of a stock, as illustrated in Figure 5a, is not suggestive of trial order in which "the quantity indicated in the trial order is automatically adjusted to zero as a result of being a trial order," as claimed in the present application. As noted earlier, an order to buy or sell an option as taught by Nelson is executable as a regular order at a market and results in a trade of a non-zero quantity of the item.





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Gutterman and Nelson, whether considered alone or combined, do not teach or suggest the elements of Claim 4. For at least these reasons, Claim 4 should be allowed.

Claims 5-11 and 29-30, which depend either directly or indirectly from Claim 4, are patentable for the same reasons as Claim 4 and for the additional subject matter they recite. In particular, Gutterman and Nelson, whether considered alone or combined, fail to teach the following features:

- further comprising selecting the trial order for pairing with the contra-side order without affecting the pairing priority of other orders in the order file (Claim 5);
- wherein reporting the pairing of the trial order includes sending a pairing report for the zero quantity of the item to a source of the trial order (Claim 6);
- wherein the pairing report includes the price at which the trial order was paired with the contra-side order (Claim 7);
- further comprising entering the trial order into an order file that contains orders to be paired with contra-side orders (Claim 29);
- wherein the order file is maintained by a market process that provides a market that enables market participants to trade items (Claim 30);
- further comprising automatically responding to a market inquiry based on orders in the order file other than the trial order (Claim 8);
- further comprising automatically removing the trial order from the order file after reporting the pairing of the trial order (Claim 9);
- wherein the automatically receiving, pairing, and reporting are performed by a market process that provides a market at which market participants trade items (Claim 10); and
- wherein the trial order is received from a trading process (Claim 11).

For at least these reasons, Claims 5-11 and 29-30 should be allowed.

Patentability of Claims 12-22 and 31-32

Claims 12-14, 15-22, and 31-32 are directed to systems that facilitate trading. In view of the discussion provided above relative to Claims 1-3 and 4-11, applicant submits that Gutterman and Nelson neither teach nor suggest the systems claimed in Claims 12-14, 15-22, and 31-32. Accordingly, for at least these reasons, Claims 12-22 and 31-32 should be allowed.





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Patentability of Claims 23-28 and 33-34

Claim 23 is directed to a computer-accessible medium having executable instructions stored thereon for facilitating trading at a market that enables market participants to trade items. The instructions, when executed, cause a computer to "receive a trial order that identifies an item to trade and indicates a quantity and a price for the item." The instructions further cause the computer to "pair the trial order with a contra-side order, wherein upon pairing, the quantity indicated in the trial order is automatically adjusted to zero as a result of being a trial order, which produces a pairing of the trial order with the contra-side order for a zero quantity of the item, and report the pairing of the trial order for the zero quantity of the item."

For reasons similar to those discussed above relative to Claims 4-9 and 29-30, applicant submits that Claim 23 and its dependent Claims 24-28 and 33-34 are not taught or suggested by the cited art, and thus are in allowable condition.

## CONCLUSION

The disclosures of Gutterman and Nelson do not support a *prima facie* rejection of Claims 1-28 under Section 103. Moreover, Claims 1, 4, 12, 15, and 23 present statutory subject matter, as do their dependent claims as well. Applicant requests reconsideration of the application and allowance of Claims 1-34. Should any issues remain needing resolution prior to allowance, the Examiner is invited to contact the undersigned counsel by telephone.

Respectfully submitted,

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